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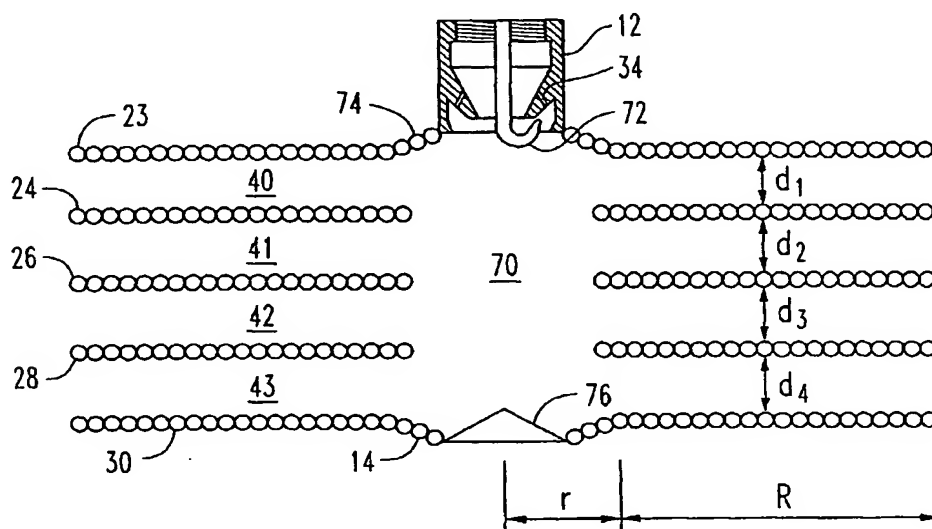
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(54) Title: MULTIPLE PLATE COMBUSTOR



(57) Abstract: The invention consists of a pulse combustor, comprising two spaced apart outer plates (23,30), the outer plates 5 having flat outer regions, conical regions (74,14) inside of the flat regions and central hubs, where the volume between conical regions of the plates defines a combustion chamber (70). The pulse combustor further comprises a plurality of intermediate plates (24,26,28) located between the outer plates, the plurality of intermediate plates being spaced apart to form tailpipe regions (40, 41,42,43) therebetween and between the outer plates and adjacent ones of the intermediate plates and a burner coupled to one of the hubs, the burner (12) operative to ignite a fuel/air mixture in the combustion chamber. The outer and intermediate plates have spiral coolant passageways therein for conducting cooling fluid to cool expanding gases traveling between the plates through the tailpipe regions. The invention further consists of a burner assembly for use in a combustion chamber.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

 International Application No
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 A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 F23C11/04 F23M5/08 F24H1/43 F23D14/58

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F23C F24H F23D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

International Application No.
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 03/01514

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

Pulse combustor with plurality of tail pipe regions

2. claims: 10-11

Burner with hollow tube and conic deflector

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/CA 03/01514

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